

UNITED STATES DEPARTMENT OF COMME **Patent and Trademark Office**

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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED	INVENTOR		ATTORNEY DOCKET NO.
9/057,502	04/09/98	SANO		Fair 1 ··· 5 ···	009683-329
- 121839		MM91/0924	¬ [EXAMINER
	SWECKER &	MATHIS L L P	_	HALLACHER,C_	
OST OFFICE	BOX 1404			ART UNIT	PAPER NUMBER

2853

DATE MAILED:

09/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<u> </u>		Application No.	Applicant(s)				
		09/057,502	SANO ET AL.				
•	Office Action Summary	Examiner	Art Unit				
		Craig A Hallacher	2853				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address							
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status							
1)🖂	Responsive to communication(s) filed on <u>05 J</u>	uly 2001 .					
2a) <u></u> □	This action is FINAL . 2b)⊠ Thi	s action is non-final.					
3) 🗌	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims							
4) Claim(s) 1-3,5-11,13-18 and 20-30 is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-3,5-11,13-18 and 20-30</u> is/are rejected.							
7)	Claim(s) is/are objected to.						
8)[Claim(s) are subject to restriction and/or	r election requirement.					
Applicati	on Papers						
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11) The proposed drawing correction filed on is: a) □ approved b) □ disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:							
a)[All b) Some c) None or.1. Certified copies of the priority documents	s have been received					
			tion No				
	 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage 						
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachmen	t(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) Other:							

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DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-3, 5-11, 13-18 and 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruta in view of Kneezel et al.

Saruta discloses (Figures 6 and 7) an ink jet printer ejecting a plurality of kinds of ink droplets of different sizes from a single nozzle depending upon data to be printed, comprising: a nozzle for ejecting ink droplets of different sizes to form an image on a recording medium with image forming dots and smoothing dots (dots smaller than the normal dot); and a smoother for performing a smoothing process using a dot smaller than a dot forming said image. Saruta also discloses that the position of the small dot is controlled by changing the speed of the dot by

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changing the degree in the signal voltage. However, Saruta does not disclose that the distance between a center of at least one of the smoothing dots is smaller than the distance between a center of one of the image forming dots. Kneezel et al discloses (Figures, 8, 10A-10AA and 11) an ink jet printer which prints image forming dots and smoother dots wherein a center of at least one of the smoothing dots is smaller than the distance between a center of one of the image forming dots. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide smoother dots closer together than image forming dots, as taught by Kneezel et al., in the ink jet printer of Saruta, in order to provide a better fill or smoother fitting (col. 7, lines 1-4 of Kneezel et al.).

Response to Arguments

- 4. Applicant's arguments with respect to claims 1-3, 5-11, 13-18 and 20-30 have been considered but are moot in view of the new ground(s) of rejection.
- 5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A Hallacher whose telephone number is (703)308-0516. The examiner can normally be reached on M-F (8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, Jr. can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-3431.

Craig A Hallacher

Examiner Art Unit 2853

C.A.H.

September 20, 2001